



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,118	10/27/2000	Duane Girard Uitenbroek	KCC-14,607	6282

7590

11/05/2002

Melanie I. Rauch
Pauley Petersen Kinne & Fejer
2800 West Higgins Road Suite 365
Hoffman Estates, IL 60195

EXAMINER

WACHTEL, ALEXIS A

ART UNIT

PAPER NUMBER

1771

6

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,118

Applicant(s)

UITENBROEK ET AL.

Examiner

Alexis Wachtel

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14-23, 26-37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-10, 14-23, 26-37 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

Detailed Action

Detailed Action

Response to Amendment

1. Applicant's amendment and accompanying Remarks filed 8-5-2002 have been entered and carefully considered.

The amendment is sufficient to overcome the obviousness rejections of claims 1-21 and the 112 2nd paragraph rejections of claims 11 and 12. The previously applied prior art fails to teach an un-necked nonwoven facing material. Claims 11-13,24,25 and 38 are cancelled without prejudice. No new claims were added. However, an updated search yielded new prior art that provides a new basis of rejection as shown below. Applicant's arguments are rendered moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 and 14-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
- Applicant's specification only supports a necked nonwoven (Specification, pp.4, lines 18-22, pp.5, lines 1-12). Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the

Art Unit: 1771

specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 22,23,26-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Mormon '028* in view of *Mormon '781* and *Kadolph et al*, (Textiles, 1998, Prentice Hall Inc., 8th Edition, pp.76, 395).

The method limitation of claim 28, wherein the film and web are bonded together via a co-extrusion coating process is given patentable weight in so far as the effects the claimed steps have on the structure and/or chemistry of the final product. It is believed the claimed process would result with a web identical to a web thermally or ultrasonically bonded to the film as taught in the cited art discussed below.

Morman '028 is directed to breathable elastic laminates and teaches a stretchable spunbonded nonwoven web bonded to an elastic film, either thermally, ultrasonically, or with an adhesive when the web is in an elongated "necked" in condition. Bonding of the unstretched elastic film to the necked in nonwoven web provides a breathable laminate which is stretchable in a direction parallel to the direction

Art Unit: 1771

of the narrowing or necking of the web before lamination, and which partially or fully recovers when the stretching force is removed (Col 2, lines 6-18). Said film can be made from any suitable film-forming elastic polymer that exhibits an ability to absorb and diffuse water vapor such as polyurethanes, polyester ethers and polyether amides (Col 2, lines 1-5). Said breathable elastic film or sheet includes a water vapor soluble polymer (Col 6, lines 4-6). The breathable elastic film or sheet should have a moisture vapor transmission (MVTR) rate of at least 2000 grams/m²-24 hours (Col 6, lines 13-18). With regards to claim 36, the breathable elastic laminate is useful as an outer cover for disposable diapers and other personal care products. The laminate is also useful for breathable surgical gowns and other breathable applications (Col 1, lines 5-10).

Regarding claim 22, Morman '028 as set forth above fails to teach that the breathable elastic laminate is biaxially stretchable. Morman '781 is directed to multi-directional stretch composites and teaches a composite elastic material that can stretch in at least two directions (Col 4, lines 35-40). Such a composite is useful in products such as diapers, tissues, wipes garments, mattress pads and feminine care products. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have manufactured the breathable elastic laminate of Morman '028 such that said laminate has biaxial stretch properties motivated by the desire to improve the tactile properties of said laminate Morman '781, (Col 1, lines 13-28).

With regards to claim 22, Morman '028 as set forth above fails to teach that the spunbonded nonwoven web may be creped or crimped. Kadolph et al teaches that that it is common and well known in the textile art to impart cohesiveness, stretch, and

Art Unit: 1771

bulking properties to fabrics by crimping (pp.76, Col 2) and to impart a soft hand to a fabric by creping (pp.395, Crepeing definition). As such, it would have been obvious to a person having ordinary skill in the art to have exploited creping and crimping techniques for the purpose of imparting the above disclosed desirable properties to a fabric such as a nonwoven. The use of such techniques would have been motivated by the desire to improve the cohesiveness, stretch, bulk and hand of the nonwoven spunbonded web via the use of well known techniques. With regards to claim 38, Morman '028 as set forth above fails to teach applying a creped spunbonded nonwoven web to the film. Since crepeing is a known technique for imparting a softer hand to a fabric, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have creped the spunbonded nonwoven web motivated by the desire to impart a softer hand to the web. It would also have been obvious for one of ordinary skill in the art to have creped the web prior to bonding it to the film motivated by the desire to prevent the crepeing process from damaging the film as would result if the web and film were already bonded together.

With regards to claims 29-35, although the claimed stretch ratios are not explicitly taught by Morman '028, Mormon '781 or Kadolph et al, it is reasonable to presume that said limitations would be met by the combination of the three references. Support for said presumption is found in the use of similar materials (i.e. biaxially stretchable laminate made from a biaxially stretchable nonwoven spunbonded web and elastic water vapor permeable polymeric film) and in the similar production steps (i.e. bonding

Art Unit: 1771

web to film) used to produce the breathable elastic laminate. The burden is upon the Applicant to prove otherwise.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mormon '028 in view of Mormon '781.

Morman '028 is directed to breathable elastic laminates and teaches a stretchable spunbonded nonwoven web bonded to an elastic film, either thermally, ultrasonically, or with an adhesive when the web is in an elongated "necked" condition. Bonding of the unstretched elastic film to the necked in nonwoven web provides a breathable laminate which is stretchable in a direction parallel to the direction of the narrowing or necking of the web before lamination, and which partially or fully recovers when the stretching force is removed (Col 2, lines 6-18). Said film can be made from any suitable film-forming elastic polymer that exhibits an ability to absorb and diffuse water vapor such as polyurethanes, polyester ethers and polyether amides (Col 2, lines 1-5). Said breathable elastic film or sheet includes a water vapor soluble polymer (Col 6, lines 4-6) which meets the limitations of claim 5. The breathable elastic film or sheet should have a moisture vapor transmission (MVTR) rate of at least 2000 grams/m²-24 hours (Col 6, lines 13-18). The neckable nonwoven web can be made of fiber forming polymers such as polyolefins, meeting the limitations of claim 13. With regards to claim 36, the breathable elastic laminate is useful as an outer cover for disposable diapers and other personal care products. The laminate is also useful for breathable surgical gowns and other breathable applications (Col 1, lines 5-10).

Regarding claim 37, Morman '028 fails to teach that the breathable elastic laminate is biaxially stretchable. Morman '781 is directed to multi-directional stretch composites and teaches a composite elastic material that can stretch in at least two directions (Col 4, lines 35-40). Such a composite is useful in products such as diapers, tissues, wipes garments, mattress pads and feminine care products. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have manufactured the breathable elastic laminate of Morman '028 such that said laminate has biaxial stretch properties motivated by the desire to improve the tactile properties of said laminate Morman '781, Col 1, lines 13-28.

7. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morman '028 in view of Morman '781 in view of US 5,554,143 to Roe et al.

Morman '028 in view of Morman '781 as set forth above fails to teach prestretching the film used in the breathable elastic laminate prior to bonding it to the spunbonded nonwoven web. Roe et al is directed to absorbent articles such as diapers, incontinent briefs having an extensible waist feature (Col 1, lines 10-15). Extensible back waist features preferably comprise a structural elastic-like film (SELF) web (Col 2, lines 54-59). It may be desirable for the (SELF) web to exhibit a certain degree of bulkiness. One method of providing this bulk includes forming a polymeric film, prestretching it and subsequently applying a nonwoven to one or both sides of said film while said film is in a prestretched state. Upon relaxation of the film's stretch, the nonwoven material forms puckers which give the material added bulk (Col 24, lines 38-48). In view of this teaching it would have been obvious for one of ordinary skill in the art

Art Unit: 1771

at the time the invention was made to have prestretched the film of Morman '028 in view of Morman '781 as set forth above before applying to the spunbonded nonwoven web, motivated by the desire to impart bulk to the resulting laminate and thusly increase the cushioning capabilities of said laminate.

8. Claims 1-10, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman '028 in view of WO 98/29246.

Morman '028 is directed to breathable elastic laminates and teaches a stretchable spunbonded nonwoven web bonded to an elastic film, either thermally, ultrasonically, or with an adhesive when the web is in an elongated "necked" in condition. Bonding of the unstretched elastic film to the necked in nonwoven web provides a breathable laminate which is stretchable in a direction parallel to the direction of the narrowing or necking of the web before lamination, and which partially or fully recovers when the stretching force is removed (Col 2, lines 6-18). Said film can be made from any suitable film-forming elastic polymer that exhibits an ability to absorb and diffuse water vapor such as polyurethanes, polyester ethers and polyether amides (Col 2, lines 1-5). Said breathable elastic film or sheet includes a water vapor soluble polymer (Col 6, lines 4-6) which meets the limitations of claim 5. The breathable elastic film or sheet should have a moisture vapor transmission (MVTR) rate of at least 2000 grams/m²-24 hours (Col 6, lines 13-18). The neckable nonwoven web can be made of fiber forming polymers such as polyolefins, meeting the limitations of claim 13. With regards to claim 36, the breathable elastic laminate is useful as an outer cover for

Art Unit: 1771

disposable diapers and other personal care products. The laminate is also useful for breathable surgical gowns and other breathable applications (Col 1, lines 5-10).

With regards to claim 1, Mormon '028 as set forth above fails to teach the use of an unnecked nonwoven facing material. WO 98/29246 is directed to breathable laminates that include a breathable film and nonwoven support layer (Abstract). Such an article is useful in applications such as surgical drapes, diapers, training pants etc (pp.1, lines 10-31). The direction of elasticity in the laminate can be tailored by the state of the film, that is, whether or not said film is in a stretched or relaxed condition during said film's bonding to a nonwoven support layer. For example, if the film is relaxed prior to bonding and the support layer is extensible in the cross-machine direction ("CD"), then a laminate with both CD and machine-direction ("MD") stretch can be produced (pp.12, lines 15-23). Examiner interprets this disclosure as evidence of an alternate means by which to afford the desirable property of CD and MD stretch that foregoes the need for a necking "procedure". In view of this teaching, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have bonded the film and nonwoven of Mormon '028, both clearly identified as having stretch/elastic properties, in the manner disclosed by WO 98/29246 instead of a necking procedure, motivated by the desire to impart biaxial stretch to the resulting composite.

With regards to claim 1, although the claimed stretch ratios are not explicitly taught by Mormon '028, it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. biaxially stretchable laminate made from a biaxially

Art Unit: 1771

stretchable nonwoven spunbonded web and elastic water vapor permeable polymeric film) and in the similar production steps (i.e. bonding web to film) used to produce the breathable elastic laminate. The burden is upon the Applicant to prove otherwise.

With regards to claim 6, although Morman '028 in view of Morman '781 as set forth above fails to explicitly teach using a film for the breathable elastic laminate wherein said film is a breathable microporous film, Morman '028 does teach that water vapor can pass through films made with pores or voids (Col 1, lines 53-57) and thusly describes microporous film and films through which water vapour may diffuse on a molecular level as equivalent for the purpose of facilitating moisture transport. The selection of these known equivalents would be within the level of ordinary skill in the art and obvious, motivated by the desire to choose a readily available or cost effective material suitable for the instant application.

With regards to claim 10, Morman '028 in view of Morman '781 as set forth above fails to teach the claimed film basis weight. However it would have been obvious for one of ordinary skill in the art at the time the invention was made to have optimized the strength and durability of the breathable elastic laminate by selecting an appropriate basis weight for the product's utility through the process of routine experimentation.

9. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman '028 in view of WO/9829246 in view of US 5,855,999 to McCormack.

Morman '028 in view of WO/9829246 as set forth above fails to teach making the web of the breathable elastic laminate out of side by side bi-component spunbond fibers wherein said side by side bi-component spunbond fibers are made of polypropylene

Art Unit: 1771

and another polyolefin. McCormack is directed to a breathable cloth-like film/nonwoven composite having useful applications in personal care absorbent articles such as diapers, sanitary napkins and incontinence garments (Col 1, lines 15-31). The nonwoven web used in the composite is a spun bond web that can be made from bicomponent fibers such as side-by-side, sheath/core and islands-in-the-sea. Such bicomponent fibers can be made from polyethylene and polypropylene (Col 9, lines 1-10). Since side-by-side type conjugate filaments, which are composed of two polymers of different heat shrinkage, and cause the filaments to manifest crimps by the different heat shrinkage, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have incorporated side-by-side bicomponent fibers made of polyethylene and polypropylene into the web of Morman '028 in view of Morman '781 as set forth above motivated by the desire to impart greater elasticity to said web.

11. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morman '028 in view of WO/9829246 in view of US 6,129,801 to Benson et al.

Morman '028 in view of WO/9829246 as set forth above fails to teach using a thermoplastic elastomer, such as thermoplastic polyurethane wherein said elastomer is a single site catalyzed elastomer. Benson et al is directed to webs having enhanced extensibility in multiple directions, wherein said webs are useful for use in disposable absorbent articles such as diapers, incontinence briefs, training pants, feminine hygiene products (Col 1, lines 5-15). Generally, any suitable elastomeric fiber forming resins or blends may be used for nonwoven webs of elastomeric fibers such as polyurethane elastomeric materials (Col 9, lines 60-67, Col 10, lines 1-8). It would have

Art Unit: 1771

been obvious for one of ordinary skill in the art at the time the invention was made to have incorporated elastomeric material such as polyurethane into the spunbonded web of the references as set forth above motivated by the desire to enhance said web's stretchability. With regards to claim 19, polyurethane is a single site catalyzed elastomer.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Alex Wachtel, whose number is (703)-306-0320. The Examiner can normally be reached Mondays-Fridays from 10:30am to 6:30pm.

If attempts to reach the Examiner by telephone are unsuccessful and the matter is urgent, the Examiner's supervisor, Mr. Terrel Morris, can be reached at (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1771

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read "Terrel Morris", with a large, stylized initial "T" and "M".

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700